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EVST 540.01: Watershed CPR (Conservation, Preservation, Restoration)

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EVST 540 Watershed CPR (Conservation, Preservation, Restoration) Fall 2002

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Sept. Introduction – 7 C's of Watershed CPR, Watershed CPR plans; grading/projects
Assignment: see: Clark Fork Slide show (http://ssrl.soc.umt.edu/evst)

Watershed Science – Connections, Capacity, Changes, Condition
References: basic but good – **Streamkeepers Guide** Ch 1 & 2 (assessments ch 3-7)
increasingly advanced – Entering the Watershed 93 (esp. exec sum & ch 3)
Naiman 92 Watershed Management (esp chs. 1, 3, 6)
Rosgen 96 Applied Stream Morphology (esp. ch 3 & 4) & Field Guide
Williams 97 Watershed Restoration (esp: chs 1, 5-8, 25)
Naiman 99 River Ecology & Mgt (esp: chs **1**, 2-4,**5**,(11,12,16),**18**,24,26
Online resources: ** **Stream Restoration Manual** (chs 1-3, $2 for CD)
http://www.usda.gov/stream_restoration/
**EPA's online watershed courses at http://www.epa.gov/watertrain/
**Papers on the Clark Fork at http://ibscore.dbs.umt.edu/clarkfork
**Watershed info site: www.cs.umt.edu/geology/nrdp/nrdpmain.htm

Oct. (1/2) – **Watershed Law/Policy--**US & MT water laws/regs & rights, nondegradation, TMDL law, MT's sufficient credible evidence of use support; definition of impairment
References: Ch 22 of Naiman 99 (River Law)
Brown, et al. 1993. Laws controlling nps. Water Res Bull. 29(1):1-13. e-reserve
** http://water.montana.edu (click: links, click: publications, then scroll list)
to find: Guide to Stream Permits,
Guide to MT Water Quality Regulation, & Wading into MT Water Rights
Mt DEQ web site: www.deq.state.mt.us/wqinfo/index.asp Mt WQ Laws

Oct 2nd half & 1st half of Nov – **Watershed CPR – Actions** – Field trips
References – see many web sites on web list
Stream Restoration Manual (planning & design 4-8, implement 9, actions A)
Aikens article (Blackfoot case study) from Watershed Restoration
Frissell's articles in Watershed Restoration & Naiman 99 (also ch 26)
file of pamphlets & booklets on BMP's, restoration & management

Nov, 2nd half – **Watershed Organizing – Communities, Choices, Commitment**
References: Chs. 21 & 25 of Naiman 99; Consensus Manual of MT Consensus Council;
Getting in Step—a Guide to Effective Outreach in your Watershed

Dec – **Student Presentations** Final meeting – Dec 20 (Friday) 10 - noon (unless we change it)

Guest Speakers: watershed coordinators, conservation district staff, planners, DFWP fish biologists, mining & reclamation engineers, restoration scientists
Field trips: see list on EVST calendar www.umt.edu/evst click on calendar
Clark Fork, Blackfoot & Bitterroot Rivers, restoration sites & companies, pulp mill, etc
(not on calendar, Placid Lake Sept 15)

References – all references mentioned above are on reserve, online and/or available from me.
Many pamphlets/booklets can be obtained free or for a small fee (get addresses from me).
Full citation of articles on reference handout

Grading –1 or 2 papers [proposal(s) 10 pts, outline(s)/biblio(s) 40pts, paper(s) 100 pts, presentation(s) 50 pts]
participation in class and on at least 2 field trips 100 pts;
attend meeting of a conservation district, watershed group, or water quality district & summarize for class 50 pts